

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. – 33. (Canceled)

34. (New) A method of providing load balancing among host servers using a load balance switch and a plurality of site switches that each couple at least one of the host servers to a network, the method comprising:

configuring, at one of said site switches, a private virtual IP address associated with said at least one host server corresponding to said site switch;

obtaining at said site switch mapping information indicative of a mapping between said private virtual IP address and a public virtual IP address; and

providing said mapping information from said site switch to at least one load balancing controller to enable said load balancing controller to update an address record to indicate said public virtual IP address as a virtual IP address configured at said site switch rather than treating said public virtual IP address as a real IP address and to enable said load balancing controller to apply at least one metric of a load balancing algorithm to said public virtual IP address.

35. (New) The method of claim 34 wherein providing said mapping information from said site switch to said at least one load balancing controller includes providing said mapping information to a load balancing controller located at said load balance switch, to enable said load balance switch to balance traffic among said site switches using said load balancing algorithm.

36. (New) The method of claim 35 wherein providing said mapping information from said site switch to said at least one load balancing controller further includes providing said mapping information to a load balancing controller located at said site switch, to enable said site switch to balance traffic among sites associated with said site switch.

37. (New) The method of claim 34 wherein public virtual IP addresses received by said load balancing controller that do not have corresponding indication in said address record as being configured as virtual IP addresses at any of said site switches, are treated as real IP addresses by said load balancing controller and are excluded from having applied thereto any metric of said load balancing algorithm that is usable with virtual IP addresses.

38. (New) The method of claim 34 wherein said at least one metric is an active bindings metric that prefers a virtual IP address, associated with any of said site switches, having a maximum number of active ones of said host servers bound to said preferred virtual IP address, rather than preferring another virtual IP address having a number of bound active ones of said host servers that is less than said maximum number.

39. (New) A method of providing load balancing among host servers using a load balance switch and a plurality of site switches that each couple at least one of the host servers to a network, the method comprising:

receiving, at said load balance switch, mapping information indicative of a mapping between a public virtual IP address and a private virtual IP address configured at one of said site switches, said private virtual IP address being associated with said at least one host server corresponding to said site switch;

updating an address record of said load balance switch to indicate said public virtual IP address as a virtual IP address configured at said site switch rather than treating said public virtual IP address as a real IP address; and

applying, at said load balance switch, at least one metric of a load balancing algorithm to said public virtual IP address.

40. (New) The method of claim 39 wherein public virtual IP addresses received by said load balance switch that do not have corresponding indication in said address record as being configured as virtual IP addresses at any of said site switches, are treated as real IP addresses by said load balance switch and are excluded from having applied thereto any metric of said load balancing algorithm that is usable with virtual IP addresses.

41. (New) The method of claim 39 wherein receiving, at said load balance switch, said mapping information includes receiving said public virtual IP address at said load balance switch instead of said private virtual IP address for entry into said address record.

42. (New) The method of claim 39 wherein said at least one metric is an active bindings metric that prefers a virtual IP address, associated with any of said site switches, having a maximum number of active ones of said host servers bound to said preferred virtual IP address, rather than preferring another virtual IP address having a number of bound active ones of said host servers that is less than said maximum number.

43. (New) An article of manufacture, comprising:

a machine-readable medium having instructions stored thereon that are executable by a processor to provide load balancing among host servers using a load balance switch and a plurality of site switches that each couple at least one of the host servers to a network, by:

obtaining at one of said site switches mapping information indicative of a mapping between a private virtual IP address and a public virtual IP address, said private virtual IP address being configured at said site switch and being associated with said at least one host server corresponding to said site switch; and

providing said mapping information from said site switch to at least one load balancing controller to enable said load balancing controller to update an address record to indicate said public virtual IP address as a virtual IP address configured at said site switch rather than treating said public virtual IP address as a real IP address and to enable said load balancing

controller to apply at least one metric of a load balancing algorithm to said public virtual IP address.

44. (New) The article of manufacture of claim 43 wherein the instructions to provide said mapping information from said site switch to said at least one load balancing controller includes instructions to provide said mapping information to a load balancing controller located at said load balance switch, to enable said load balance switch to balance traffic among said site switches using said load balancing algorithm.

45. (New) The article of manufacture of claim 44 wherein the instructions to provide said mapping information from said site switch to said at least one load balancing controller further includes instructions to provide said mapping information to a load balancing controller located at said site switch, to enable said site switch to balance traffic among sites associated with said site switch.

46. (New) The article of manufacture of claim 43 wherein said at least one metric is an active bindings metric that prefers a virtual IP address, associated with any of said site switches, having a maximum number of active ones of said host servers bound to said preferred virtual IP address, rather than preferring another virtual IP address having a number of bound active ones of said host servers that is less than said maximum number.

47. (New) An article of manufacture, comprising:

a machine-readable medium having instructions stored thereon that are executable by a processor to provide load balancing among host servers using a load balance switch and a plurality of site switches that each couple at least one of the host servers to a network, by:

receiving, at said load balance switch, mapping information indicative of a mapping between a public virtual IP address and a private virtual IP address configured at one of said site switches, said private virtual IP address being associated with said at least one host server corresponding to said site switch;

updating an address record of said load balance switch to indicate said public virtual IP address as a virtual IP address configured at said site switch rather than treating said public virtual IP address as a real IP address; and

applying, at said load balance switch, at least one metric of a load balancing algorithm to said public virtual IP address.

48. (New) The article of manufacture of claim 47 wherein public virtual IP addresses received by said load balance switch that do not have corresponding indication in said address record as being configured as virtual IP addresses at any of said site switches, are treated as real IP addresses by said load balance switch and are excluded from having applied thereto any metric of said load balancing algorithm that is usable with virtual IP addresses.

49. (New) The article of manufacture of claim 47 wherein the instructions to receive, at said load balance switch, said mapping information includes instructions to receive said public virtual IP address at said load balance switch instead of said private virtual IP address for entry into said address record.

50. (New) The article of manufacture of claim 47 wherein said at least one metric is an active bindings metric that prefers a virtual IP address, associated with any of said site switches, having a maximum number of active ones of said host servers bound to said preferred virtual IP address, rather than preferring another virtual IP address having a number of bound active ones of said host servers that is less than said maximum number.

51. (New) A network device, comprising:

a site switch configurable with a private virtual IP address associated with at least one host server corresponding to said site switch; and

a component in said site switch to obtain mapping information indicative of a mapping between said private virtual IP address and a public virtual IP address,

wherein said site switch is adapted to provide said obtained mapping information to at least one load balancing controller to enable said load balancing controller to update an address record to indicate said public virtual IP address as a virtual IP address configured at said site switch rather than treating said public virtual IP address as a real IP address and to enable said load balancing controller to apply at least one metric of a load balancing algorithm to said public virtual IP address.

52. (New) The network device of claim 51 wherein said at least one load balancing controller includes a load balancing controller located at a load balance switch remote from said site switch.

53. (New) The network device of claim 52 wherein said at least one load balancing controller further includes a load balancing controller located at said site switch and adapted to balance traffic among sites associated with said site switch.

54. (New) The network device of claim 51 wherein public virtual IP addresses received by said load balancing controller that do not have corresponding indication in said address record as being configured as virtual IP addresses at any site switch, are treated as real IP addresses by said load balancing controller and are excluded from having applied thereto any metric of said load balancing algorithm that is usable with virtual IP addresses.

55. (New) The network device of claim 51 wherein said at least one metric is an active bindings metric that prefers a virtual IP address, associated with any site switch, having a maximum number of active ones of said host servers bound to said preferred virtual IP address, rather than preferring another virtual IP address having a number of bound active ones of said host servers that is less than said maximum number.

56. (New) A network device, comprising:

a load balance switch adapted to receive mapping information indicative of a mapping between a public virtual IP address and a private virtual IP address configured at a site switch, said private virtual IP address being associated with at least one host server corresponding to said site switch; and

an address record of said load balance switch to indicate said public virtual IP address as a virtual IP address configured at said site switch rather than treating said public virtual IP address as a real IP address,

wherein said load balance switch is further adapted to apply at least one metric of a load balancing algorithm to said public virtual IP address.

57. (New) The network device of claim 56 wherein other public virtual IP addresses received by said load balance switch as part of reply to a query for network addresses and that do not have corresponding indication in said address record as being configured as virtual IP addresses at any of said site switches, are treated as real IP addresses by said load balance switch and are excluded from having applied thereto any metric of said load balancing algorithm that is usable with virtual IP addresses, and

wherein said public virtual IP address, which is indicated in said address record as a virtual IP address configured at said site switch, has said at least one metric applied thereto by said load balance switch, if said public virtual IP address is included in said reply to said query.

58. (New) The network device of claim 56 wherein said at least one metric is an active bindings metric that prefers a virtual IP address, associated with any of said site switches, having a maximum number of active ones of said host servers bound to said preferred virtual IP address, rather than preferring another virtual IP address having a number of bound active ones of said host servers that is less than said maximum number.

59. (New) The network device of claim 56 wherein said mapping information received by said load balance switch includes said public virtual IP address instead of said private virtual IP address.